1. An ultrasound medical treatment system comprising:

a) an ultrasound medical-treatment transducer; and

b) a controller which controls the medical-treatment transducer to emit ultrasound to thermally ablate patient tissue, wherein the control includes a control parameter, and wherein the controller changes the control parameter based on receiving an indication of an occurrence in the patient tissue of a transient, ultrasound-caused, ultrasound-attenuating effect.

2. The ultrasound medical treatment system of claim 1, wherein the control parameter is chosen from the group consisting of an ultrasonic acoustic power density of the ultrasound emitted by the medical-treatment transducer, an ultrasonic frequency of the ultrasound emitted by the medical-treatment transducer, a beam characteristic of the ultrasound emitted by the medical-treatment transducer, a duty cycle of the ultrasound emitted by the medical-treatment transducer, and a pulse sequence of the ultrasound emitted by the medical-treatment transducer.

3. The ultrasound medical treatment system of claim 2, wherein the beam characteristic is chosen from the group consisting of an active aperture of the beam, a focusing characteristic of the beam, and a steering angle of the beam.

4. The ultrasound medical treatment system of claim 2, wherein the ultrasound-attenuating effect is caused by at least one cause chosen from the group consisting of bubble activity from tissue cavitation, bubble activity from tissue boiling, and a temperature-related change in tissue ultrasonic absorption.

5. The ultrasound medical treatment system of claim 4, wherein the indication of the occurrence of the ultrasound-attenuating effect is based on an imaging ultrasound echo from the patient tissue.

END5313

6. The ultrasound medical treatment system of claim 5, wherein the medical-treatment transducer is an ultrasound medical-imaging-and-treatment transducer, and wherein the imaging ultrasound echo is received by the medical-imaging-and-treatment transducer.

7. The ultrasound medical treatment system of claim 1, wherein the ultrasound-attenuating effect is caused by at least one cause chosen from the group consisting of bubble activity from tissue cavitation, bubble activity from tissue boiling, and a temperature-related change in tissue ultrasonic absorption.

8. The ultrasound medical treatment system of claim 1, wherein the indication of the occurrence of the ultrasound-attenuating effect is based on an imaging ultrasound echo from the patient tissue.

9. An ultrasound medical treatment system comprising:

a) an ultrasound medical-treatment transducer; and

b) a controller which controls the medical-treatment transducer to emit ultrasound at a first ultrasound acoustic power density to thermally ablate patient tissue, wherein the controller reduces the emitted ultrasound to a lower second ultrasound acoustic power density based on receiving an indication of an onset in the patient tissue of a transient, ultrasound-caused, ultrasound-attenuating effect.

10. The ultrasound medical treatment system of claim 9, wherein the lower second ultrasound acoustic power density substantially eliminates the ultrasound-attenuating effect.

11. The ultrasound medical treatment system of claim 10 , wherein the onset of the ultrasound-attenuating effect is indicated by an inception of a proximal hyperechoic region of the patient tissue with distal ultrasound attenuation.

END5313

12. A method for medically treating patient tissue with ultrasound comprising the steps of:

a) obtaining an ultrasound medical-treatment transducer;

b) controlling the medical-treatment transducer to emit ultrasound to thermally ablate the patient tissue, wherein the control includes a control parameter, and wherein the control parameter is set to a first setting;

c) receiving an indication of an occurrence in the patient tissue of a transient, ultrasound-caused, ultrasound-attenuating effect;

e) changing the control parameter to a second setting based on receiving the indication; and

f) controlling the medical-treatment transducer to emit ultrasound to thermally ablate the patient tissue, wherein the control parameter is set to the second setting.

13. The method of claim 12, wherein the control parameter is chosen from the group consisting of an ultrasonic acoustic power density of the ultrasound emitted by the medical-treatment transducer, an ultrasonic frequency of the ultrasound emitted by the medical-treatment transducer, a beam characteristic of the ultrasound emitted by the medical-treatment transducer, a duty cycle of the ultrasound emitted by the medical-treatment transducer, and a pulse sequence of the ultrasound emitted by the medical-treatment transducer.

14. The method of claim 13, wherein the beam characteristic is chosen from the group consisting of an active aperture of the beam, a focusing characteristic of the beam, and a steering angle of the beam.

15. The method of claim 13, wherein the ultrasound-attenuating effect is caused by at least one cause chosen from the group consisting of bubble activity from tissue cavitation, bubble activity from tissue boiling, and a temperature-related change in tissue ultrasonic absorption.

END5313

16. The method of claim 15, wherein the indication of the occurrence of the ultrasound-attenuating effect is based on an imaging ultrasound echo from the patient tissue.

17. The method of claim 16, wherein the medical-treatment transducer is an ultrasound medical-imaging-and-treatment transducer, and wherein the imaging ultrasound echo is received by the medical-imaging-and-treatment transducer.

18. The method of claim 12, wherein the ultrasound- attenuating effect is caused by at least one cause chosen from the group consisting of bubble activity from tissue cavitation, bubble activity from tissue boiling, and a temperature-related change in tissue ultrasonic absorption.

19. The method of claim 12, wherein the indication of the occurrence of the ultrasound-attenuating effect is based on an imaging ultrasound echo from the patient tissue.

20. The method of claim 12, wherein the control parameter is an ultrasonic acoustic power density, wherein the second setting is lower than the first setting and substantially eliminates the ultrasound-attenuating effect, and wherein the onset of the ultrasound-attenuating effect is indicated by an inception of a proximal hyperechoic region of the patient tissue with distal ultrasound attenuation.

END5313